

Methods of Eliciting Broadly Neutralizing Antibodies Targeting HIV gp41

Abstract

5 The present invention is directed to the induction and characterization of a
humoral immune response targeting "entry-relevant" gp41 structures. In its broadest
aspect, the present invention is directed to methods of raising a neutralizing antibody
response to a broad spectrum of HIV strains and isolates. The present invention targets
particular molecular conformations or structures that occur at the cell surface of HIV
during viral entry into host cells. Such a humoral response can be generated *in vivo* as a
10 prophylactic measure in individuals to reduce or inhibit the ability of HIV to infect
uninfected cells in the individual's body. Such a response can also be employed to raise
antibodies against "entry relevant" gp41 structures. These antibodies can be employed for
therapeutic uses, and as tools for further illuminating the mechanism of HIV cell entry.